

**Amendment to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A method for the hydrogenation of unsaturated polymers containing double bonds, characterized in that a metal-containing colloid is first prepared under reducing conditions in the presence of an unsaturated polymer present in latex form, whereby the pH during the preparation of the metal-containing colloid is in the range from 3 to 6, the colloid-containing latex mixture obtained is then hydrogenated, the metal-containing colloid is then separated from the latex and the polymer latex obtained is isolated.
2. (Original) The method as claimed in claim 1, characterized in that unsaturated polymers containing double bonds which are used are those which are composed of conjugated dienes or of from 1 to 5% by weight of conjugated dienes and from 95 to 99% by weight of unsaturated monomers containing vinyl groups.
3. (Previously Presented) The method as claimed in claim 1, characterized in that the concentration of the polymer latex to be hydrogenated is from 1 to 50% by weight, based on the aqueous emulsion.
4. Cancelled.
5. (Previously Presented) The method as claimed in claim 1, characterized in that metal salts or metal complexes which are based on metals of group VIII B of the Periodic Table of the Elements (Mendeleev) and of ruthenium or rhodium are used for the preparation of the metal-containing colloid.

6. (Previously Presented) The method as claimed in claim 1, characterized in that the hydrogenation of the colloid-containing latex mixture is carried out at pressures in the range of from 0.1 to 100 bar and at temperatures in the range of from 25 to 100°C.